

In the Claims

1 – 40. Cancelled)

41. (New) A percutaneous filter system comprising:

a guidewire;

a first sheath comprising a lumen adapted to receive the guidewire;

a filter wire having a distal region;

an expandable filter positioned on the distal region of the filter wire; and

a second sheath having a distal region, a proximal region and a lumen extending therebetween, the lumen adapted to receive the filter wire and the expandable filter;

wherein the first sheath is positioned proximate the distal region of the second sheath.

42. (New) The percutaneous filter system of claim 41, wherein the second sheath comprises a catheter.

43. (New) The percutaneous filter system of claim 42, wherein the catheter comprises an exterior surface, and the first sheath is secured to the exterior surface of the catheter.

44. (New) The percutaneous filter system of claim 41, further comprising an elongate member having a proximal region and a distal region.

45. (New) The percutaneous filter system of claim 44, wherein the first sheath comprises a tubular segment and is secured to the distal region of the elongate member.

46. (New) The percutaneous filter system of claim 44, wherein the second sheath comprises a tubular segment and is secured to the distal region of the elongate member.

47. (New) The percutaneous filter system of claim 41, further comprising a percutaneous medical instrument, wherein the filter wire is adapted to receive the percutaneous medical instrument.

48. (New) The percutaneous filter system of claim 47, wherein the percutaneous medical instrument comprises a percutaneous medical instrument selected from the group consisting of an angioplasty catheter, a stent-deployment catheter, an atherectomy catheter, an intravascular ultrasound catheter, and an aspiration catheter.

49. (New) A method of deploying a percutaneous medical instrument, comprising steps of:

providing a percutaneous filter apparatus comprising a guidewire, a first sheath adapted to receive the guidewire, a filter wire having a distal region and an expandable filter positioned on the distal region of the support wire, a second sheath adapted to receive the support wire and the expandable filter, the second sheath having a distal region, the first sheath being secured to the distal region of the second sheath;

providing a percutaneous medical instrument;

advancing the guidewire into a region of interest;

advancing the filter apparatus along the guidewire, the first sheath engaging the guidewire, the support wire positioned within the second sheath;

withdrawing the second sheath;

deploying the filter downstream of the region of interest; and

advancing the percutaneous medical instrument along either the guidewire or the filter wire.

50. (New) The method of claim 49, wherein the percutaneous medical instrument is advanced over the filter wire subsequent to withdrawing the guidewire.

51. (New) The method of claim 49, wherein the percutaneous medical instrument is advanced over the guidewire.

52. (New) The method of claim 49, wherein providing a percutaneous filter apparatus includes providing a first sheath comprising a tubular segment and a second sheath comprising a catheter having a distal region, where the first sheath is secured to the distal region of the second sheath.

53. (New) The method of claim 49, wherein providing a percutaneous filter apparatus includes providing an elongate member, a first sheath comprising a tubular segment and a second sheath comprising a tubular member, where the first sheath and the second sheath are secured to the elongate member.

54. (New) The method of claim 49, wherein the percutaneous medical instrument comprises a percutaneous medical instrument selected from the group consisting of an angioplasty catheter, a stent-deployment catheter, an atherectomy catheter, an intravascular ultrasound catheter, and an aspiration catheter.